

Docket No. 219175US0

IN RE APPLICATION OF: Yuqing XU et al.

SERIAL NO: 10/066,614

FILED: February 6, 2002

FOR: PROCESS FOR PRODUCING TONER FOR DEVELOPING ELECTROSTATIC IMAGE

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Transmitted herewith is an amendment in the above-identified application.

- ☒ No additional fee is required
- ☐ Small entity status of this application under 37 C.F.R. §1.9 and §1.27 is claimed.
- ☐ Additional documents filed herewith:

The Fee has been calculated as shown below:

CLAIMS	CLAIMS REMAINING		HIGHEST NUMBER PREVIOUSLY PAID	NO. EXTRA CLAIMS	RATE	CALCULATIONS
TOTAL	16	MINUS	20	0	x \$18 =	\$0.00
INDEPENDENT	5	MINUS	5	0	x \$86 =	\$0.00
		<input type="checkbox"/> MULTIPLE DEPENDENT CLAIMS				+ \$290 = \$0.00
		TOTAL OF ABOVE CALCULATIONS				\$0.00
		<input type="checkbox"/> Reduction by 50% for filing by Small Entity				\$0.00
		<input type="checkbox"/> Recordation of Assignment				+ \$40 = \$0.00
		TOTAL				\$0.00

- ☐ A check in the amount of **\$0.00** is attached.
- ☐ Credit card payment form is attached to cover the fees in the amount of **\$0.00**
- ☒ Please charge any additional Fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit Account No. 15-0030. A duplicate copy of this sheet is enclosed.
- ☒ If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time may be charged to Deposit Account No. 15-0030. A duplicate copy of this sheet is enclosed.

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"RESPONSE UNDER 37 CFR 1.116-
EXPEDITED PROCEDURE EXAMINING
GROUP 1756"

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TC 1700



"RESPONSE UNDER 37 CFR 1.116-
EXPEDITED PROCEDURE EXAMINING
GROUP 1756"

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OCT 08 2003
TC 1700

DOCKET NO.: 21915US0

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :
YUQING XU, ET AL. : EXAMINER: RODEE, C.
SERIAL NO: 10/066,614 :
FILED: FEBRUARY 6, 2002 : GROUP ART UNIT: 1756
FOR: PROCESS FOR PRODUCING :
TONER FOR DEVELOPING
ELECTROSTATIC IMAGE

CONSIDERED
10/13
CR

REQUEST FOR RECONSIDERATION AFTER FINAL

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Responsive to the Final Office Action dated July 9, 2003, Applicants respectfully
request reconsideration of the above-identified application in view of the following remarks.

Claims 1-16 remain pending in the application.

Remarks begin on page 2 of this paper.

REMARKS

The rejections under 35 U.S.C. § 103(a) of Claims 1-6 and 14-16 as unpatentable over U.S. 5,723,252 (Patel et al) in view of U.S. 4,659,641 (Mahalek et al); of Claim 7 as unpatentable over Patel et al in view of U.S. 5,965,316 (Kmiecik-Lawrynowicz et al), and further in view of U.S. 4,997,739 (Tomono et al), and still further in view of Mahalek et al; and of Claim 10 as unpatentable over Patel et al in view of U.S. 5,576,393 (Yamashita et al), and further in view of Mahalek et al, are respectfully traversed.

As recited in Claim 1, the present invention is a process for producing a toner for developing electrostatic image comprising an agglomerate step wherein a dispersion liquid containing at least primary polymer particles and colorant particles is stirred in a stirring tank to agglomerate the particles to thereby obtain agglomerate of the particles as an agglomerate liquid and an aging step wherein the resultant agglomerate of the particles is kept at a temperature higher than the glass transition temperature of the primary polymer particles by 10° C or more for a predetermined period of time to thereby fuse the particles, wherein the concentration of solid content C1 in the agglomerate step is 10 to 40% by weight, and the concentration of the solid content C2 in the aging step is in the range of $0.3C1 \leq C2 \leq 0.8C1$, and wherein a surfactant is added or the pH value of the agglomerate liquid is raised before subjecting the liquid to the aging step.

Patel et al discloses a process for preparing a toner, which comprises seven steps, as disclosed therein. The Examiner recognizes that the claims now require that either a surfactant is added to, or the pH value raised of, the agglomerate liquid prior to subjecting the liquid to the aging step.

The Examiner recognizes that Patel et al do not disclose the addition of a surfactant at a point where the surfactant is added in the presently-claimed invention. The Examiner instead notes that Patel et al, in Example II therein, adds a surfactant earlier in their process

for maintaining the dispersed condition of the pigment. The Examiner now also relies on Mahalek et al for a disclosure that a mixture of tricalcium phosphate (TCP) and a surfactant are combined to maintain components in a dispersed condition for toner preparation, relying on Example I therein.

In reply, Applicants do not dispute the fact that surfactants are used to form a dispersion. Indeed, Applicants disclose herein the use of surfactants to make their starting dispersion liquid. But why, absent the present disclosure, would one skilled in the art add a surfactant to an agglomerate liquid which, in effect, contains particles in a form diametrically opposed from particles in a dispersed form? Moreover, as Patel et al disclose that their in-situ TCP acts as a stabilizer to retain the particle size of the aggregates, why would one skilled in the art additionally include a surfactant, not disclosed in the prior art for this function? The Examiner's citation of *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980), is inapposite for that reason.

To the extent the Examiner may deem the TCP of Patel et al as a surfactant, note that Patel et al disclose their TCP and surfactant as different substances from each other; that TCP in Patel et al is a solid particle, and thus does not function as the surfactant; that Patel et al discloses a metal compound only as a substance to be added for retaining particle size and GSD; in Patel et al, no surfactant is added between the aggregation step and the coalesce step; and the TCP in Patel et al is added to physically prevent aggregation by adhering the solid particle on the surface of the aggregated particle.

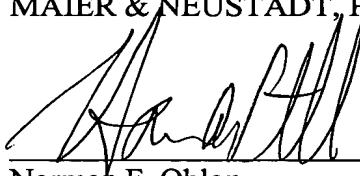
Nor does any of Kmiecik-Lawrynowicz et al, Tomono et al, or Yamashita et al remedy the above-discussed deficiencies in the combination of Patel et al and Mahalek et al.

For all the above reasons, it is respectfully requested that the rejections over prior art be withdrawn.

Applicants gratefully acknowledge the Examiner's allowance of Claims 8, 9 and 11-13. Nevertheless, Applicants respectfully submit that all of the presently-pending claims in this application are now in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Respectfully submitted,

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